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Snare Removal Program in Kibale National Park: a Preliminary Report

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Deliberate hunting of chimpanzees is rare in Uganda but as in the rest of Africa, through much of the countryside poachers intent on bushmeat hide snares for antelopes or pigs. The only way to reduce the effects of snare-hunting on apes appears to be to reduce the rate of snare-setting and/or to remove snares. This is a time-consuming process, and there are few reports on the success rate of snare removal programs. This report describes some results from our program.

Snare risks for Kanyawara chimpanzees.

The Kanyawara chimpanzee community, in the northwest part of Kibale National Park, has averaged about 50 individuals between 1987 and 2000. Kanyawara chimpanzees sometimes obviously recognize a concealed snare-trap, and walk around it with a sideways glance. But at other times they fail to see them. Distracted, perhaps, by play or social interactions, individuals have received 15 known fresh snare wounds in the 13 years since the Kibale Chimpanzee Project began, i.e. a 3.7% risk of being snared per year. One result is that many chimpanzees have life-long wounds. Out of 59 "snareable" individuals observed from 1988 to 1999 (those at least six years old), four (6.8%) had lost a hand, and a further 12 (20.3%) had noticeable wounds ranging from loss of knuckles to bent wrists or crippled feet. Only one Kanyawara chimpanzee has definitely died from a snare wound (Nectar, 1998, at almost 9 years old). Disappearances of others without signs of aging or illness suggest the death rate from snaring could reach 1.1% per year.

Snare-removal program.

In September 1997 we initiated a project to remove snares from the Kanyawara area of Kibale National Park, Uganda, where chimpanzees have been observed intermittently since 1979 (Wrangham *et al.* 1996). Patrols were conducted by SM with two expert assistants (John Okwilo and Aloysius Makuru). Initially, searches were made throughout the community range of the Kanyawara community of chimpanzees (approximately 35 km^2). Subsequently, searches were expanded to include perhaps 50% of the Park.

The total number of snares removed from Kibale Park between September 1997 and June 2000 was 2290 (in 34 months, i.e. 67 per month, s.d.=55). Snare density varied by habitat, reaching a maximum of 240 snares per km^2 in swamp forests. The overall snare density in the 760 km^2 of Kibale Park suggests at least 15000 snares present at any time.

The number of snares found per month varied widely, averaging as low as 11 in August, to 154 in October (Table 1). This corresponds closely to the pattern of rainfall, which peaks in March-May and September-November. One interpretation of this correlation is that it is easier to find snares in the wet season, because at that time, poachers' tracks are more easily detected in the dew.

Like the probability of finding snares, the probability of individuals receiving snares also appears to vary seasonally. In particular, no individuals have been snared from July to October (Table 1). This raises the possibility that poachers choose not to set snares so frequently during the drier seasons (perhaps because they find it hard to see animal tracks, and therefore cannot set snares so effectively). If this is correct, we will continue to find that the probability of a chimpanzee being snared is highest in the weeks during and after rainy periods.

Impact of the snare-removal program.

Several factors mean that it is not easy to assess directly the impact of the snare removal program on the rate at which snares are being set.

1. Our team has covered a wider area of the Park each year, as snares have become harder to find in the Kanyawara area.

Table 1.
Number of snares removed by KCP team from Kibale National Park, 1997-2000.
"Snares per chimp" records months in which chimpanzees were snared.

	1997	1998	1999	2000	AVERAGE # SNARES REMOVED 1997-2000	Rainfall (mm)	Snares per chimpanzee
JAN		28	98	91	72.3	53.3	1
FEB		88	40	25	51.0	50.0	2
MAR		83	104	40	75.7	161.9	2
APR		80	20	27	42.3	180.0	3
MAY		94	38	35	55.7	177.7	2
JUN		20	11	30	20.3	64.0	1
JUL		22	52		37.0	60.7	0
AUG		9	14		11.5	115.2	0
SEP	42	13	260		105.0	219.7	0
OCT	152	151	160		154.3	261.8	0
NOV	33	138	43		71.3	268.0	2
DEC	68	61	120		83.0	87.3	1
Total	295	787	960	248	2290	1724.7	14
Average per month	73.8	65.6	80.0	41.3	65.0		

2. Seasonal variation in the ease of finding snares complicates the overall trends.
3. The total time spent looking for snares by our snare removal team varies in ways that are hard to measure accurately. For example, the amount of time spent walking to the target areas increases with the distance from Kanyawara.
4. Snares are now being set in thicker vegetation and more difficult locations. Poachers have also started to use techniques designed to make it harder for their snares to be located. For example, instead of walking off an existing trail to set snares, they jump off it, so that it is harder for our team to see where the poachers have left the trail.

However, there is some indication that the rate of snare-finding is falling. For example, when the number of snares found from January to June is compared, it has declined from 393 to 311 to 248 (1998 to 2000).

To assess the impact of the snare removal program on the risk for a chimpanzee of receiving a snare, we calculated the inter-snare interval for the Kanyawara community, i.e. the number of months with no chimpanzees being snared. The mean inter-snare interval was 8 months until April 1998, at which point the longest inter-snare interval since 1987 was recorded (24 months). This suggested that chimpanzees were experiencing a reduced rate of snaring. However, in April 2000 a juvenile female (Kaana) received two snares. Neither was life-threatening. Kaana's family lives in the far north of the Kanyawara range in an area that includes much village edge habitat and secondary vegetation. Such habitat is difficult to patrol, but appears to be a focus of poacher efforts. This shows that even with intense efforts, it is impossible to eliminate the threat.

Implications for conservation.

These data suggest that a snare removal program can contribute to the welfare of chimpanzees. However, many years will be required to assess its effectiveness fully.

Beyond the immediate effects on chimpanzee injury, the Snare Removal Program has the potential for promoting a wider interest in conservation. For example, after learning of the program's efforts, the Chief Park Warden assigned up to four of his staff to work with our team, learning their techniques. We also anticipated that this program would be welcomed in other parts of Uganda. However the Uganda Wildlife Authority has at the present time decided not to implement or encourage similar snare removal programs elsewhere. We hope that this policy will eventually be changed.

The removed snares are carefully retained, and most have been taken to the Uganda Wildlife Education Center (Entebbe) where they are presented in an educational display. In addition, an imaginative attempt is being sponsored by the Jane Goodall Institute

(Uganda) to develop art-work that uses parts of the snares. The aim is to sell the art-work for its educational value, and to use the profits to fund conservation efforts.

Acknowledgements

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